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Warfare Against Enemy Radioelectronic Means

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In our opinion, the article by General-Leytenant I. Katyshkin and Colonel B. Lukashev raises extremely urgent questions.*

We completely agree with the authors that the direction of warfare against enemy radioelectronic means should be centralized and supported by unified planning, both while preparing and also while conducting an operation when branch arms and SPETSNAZ radio and radiotechnical units are assigned the tasks of destroying and neutralizing the most important enemy radioelectronic means in accordance with the plan and progress of the operation.

In particular, one of the fundamental requirements for successfully using radio and radiotechnical jamming units, in our opinion, is centralized control over them. Only in this manner is it possible to direct their efforts for the simultaneous neutralization of the most important radioelectronic means.

The need to centralize the control and direction of jamming units has also been borne out by the experience of the Group of Soviet Forces, Germany, where, since 1961, the direction of all radio and radiotechnical jamming units, and also the planning of measures for warfare against enemy radioelectronic means, have been carried out within a single organ of the Group staff -- in the department for warfare against enemy radioelectronic means. Thanks to this organization, the effectiveness of measures for warfare against enemy radioelectronic means has been considerably improved in the exercises that have been held, planning has been simplified, and the organization of special training for personnel of SPETSNAZ radio and radiotechnical units and for officer-specialists on warfare against enemy radioelectronic means in combined-arms and tank armies has been improved. Based on this, we fully share the authors' opinion that the time has come to charge the departments for warfare against enemy radioelectronic means of the staffs of military districts and groups of forces with the planning

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of measures for warfare against enemy radioelectronic means and the direction of the combat activities of SPETSNAZ radio and radiotechnical units.

It should be noted that in the armies of our probable enemies radioelectronic warfare planning and direction is carried out in a centralized manner. As we know, the assistant chief of staff for operational matters and combat training is engaged in this and has the requisite specialists subordinated to him.

It seems to us that measures for warfare against enemy radioelectronic means in operations should be set forth in several documents united by a single concept and purpose:

- in the plan for destroying and neutralizing enemy radioelectronic means;
- in the front staff instruction on warfare against enemy radioelectronic means;
- in the combat instructions for SPETSNAZ radio and radiotechnical units;
- in the operational camouflage plan.

Measures to be carried out in branch arms and the special troops should be set forth in the plans for employing the branch arms and special troops, and not in a single plan, as suggested by the authors of the article being discussed.

We fully share the authors' opinion which asserts that it is necessary to have radio and radiotechnical jamming units and subunits in each border military district and combined-arms (tank) and air army in order to wage effective warfare against enemy radioelectronic means. At the same time, we cannot agree that in peacetime each combined-arms (tank) army can be limited to a single company for jamming shortwave, ultra-shortwave, and radio-relay communications. Research that has been carried out has shown that in order to work out the problems of jamming radio and radio-relay communications, to organize cooperation with radio reconnaissance, and also to train the staffs of large units and units to operate under jamming conditions, each motorized rifle (tank) division of a border military district needs a company for jamming radio and radio-relay communications at the tactical level of control (two or three jammers for jamming shortwave radio communications, six to eight jammers for ultra-shortwave radio communications, and four or five jammers for radio-relay communications). Furthermore, the availability of such companies within divisions would allow in wartime measures for warfare against enemy

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radioelectronic means to be implemented without delay and army SPETSNAZ radio battalions to be activated on the basis of them.

As concerns the army jamming company recommended for peacetime, it would be advisable, in our view, for it to have means for jamming shortwave tactical level communications (10 to 12 jammers). This will permit us to work out more fully in army exercises the problems of producing jamming and organizing cooperation with radio reconnaissance units, to organize the training of personnel, and, when necessary, to expand to front SPETSNAZ radio battalions on the basis of the company.

The necessity of having a jamming company in a combined-arms (tank) army is also corroborated by current views on the use of army units in wartime. According to these views, ultra-shortwave and radio-relay communications jamming companies from army units are attached to the divisions operating on the most important or independent axes, and a shortwave radio communications jamming company is used in support of the army.

As was revealed by research, to reconnoiter and combat enemy radio-relay communications, in peacetime each border military district must have a squadron of helicopters which produce jamming of radio-relay communications at the operational-tactical control level (six to eight helicopters with four jamming transmitters each).

One also has to agree with the authors that there has long been a need to develop one-time jamming transmitters for ultra-shortwave radio communications, deliverable by missiles, artillery shells, or aircraft into the areas of enemy command posts. This would allow us to disrupt control of enemy troops and combat means without detailed radio reconnaissance and would ensure the stable operation of our own ultra-shortwave radio communications.

Warfare against enemy radioelectronic means also includes radio deception measures which have considerable importance in peacetime, also. To implement them, in our view, in each border military district and group of forces we should establish special radio deception units or subunits and organize the training of specialists for them.

* * *

In present-day armed forces the troop and weapons control systems are the most vulnerable link. At the same time, the growing importance of

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control is obvious. Therefore, it is not by mere chance that all armies devote such great attention to the reliability of control.

At present all of us well appreciate the fact that the service for warfare against enemy radioelectronic means is the one organization in the hands of a commander with the help of which he can disrupt enemy troop and weapons control, conduct radiotechnical reconnaissance of enemy radioelectronic means, and reconnoiter and neutralize the means producing jamming. It is also called upon to monitor the radio emissions of our own radioelectronic means, and to implement radio deception and the radio camouflage of radio emissions. These are our concepts of the tasks of the present-day service for warfare against enemy radioelectronic systems. But, regrettably, we still do not share a common opinion concerning all of the functions of this service. Therefore, the authors of the article "Combat Against Enemy Radioelectronic Means", General-Leytenant I. Katyshkin and Colonel B. Lukashev, are entirely correct when they call attention to the necessity of substantial changes in the organization of warfare against enemy radioelectronic means since in actual practice there is as yet no single service for this in our armed forces, as there is also no centralized control of SPETSNAZ units and subunits.

Our probable enemies attach enormous importance to radiotechnical reconnaissance of radioelectronic systems, and to finding out the content of the stream of information passing through control channels. The US alone has deployed approximately 2,000 fixed and mobile radio and radiotechnical reconnaissance posts, reconnaissance aircraft make daily flights along our country's borders, and a large number of artificial earth satellites for radiotechnical reconnaissance are orbiting continuously in space.

Under these conditions, great importance is attached to regular and timely warning about the overflights of artificial earth satellites, to radio camouflage of the emissions of radioelectronic means (especially of new models), to radio deception and the production of masking jamming, and also to the monitoring of radio emissions and the flow of information through technical communications means. In our opinion, the above-mentioned array of problems can be solved only by a special service for warfare against enemy radioelectronic means. However, at present various services are involved in all of this to some extent and in different ways in the various branch arms. For example, the monitoring of radio emissions of radioelectronic means is accomplished in the Air Defense Forces of the Country by the service for warfare against enemy radioelectronic means, and in the ground forces by the 8th Department and

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the communications troops. Within one military district there may be three or more organizations, belonging to various branch arms, engaged in monitoring radio emissions. Meanwhile, it is completely obvious that radio camouflage and radio deception should be directed from a single center and in accordance with a single plan.

A clear discrepancy has developed in front aviation and in the field of radiotechnical reconnaissance. The service for warfare against enemy radioelectronic means is, in fact, now the principal user of data on enemy radioelectronic equipment; but reconnaissance of enemy radioelectronic means is conducted by the intelligence service which is interested in simpler information on enemy radioelectronic means: the type of radioelectronic means and their disposition. To wage warfare against enemy radioelectronic means it is necessary to know the parameters of the radioelectronic means more precisely, but these are of little interest to the chief of intelligence. Therefore, in our opinion, in front aviation, reconnaissance of enemy radioelectronic means should be carried out by the service for warfare against enemy radioelectronic means; all other data on radioelectronic means required for an overall analysis of the enemy would always be received in a timely manner by the chief of intelligence from the service for warfare against enemy radioelectronic means.

We are in complete agreement with the authors of the article under discussion concerning the fact that now, in peacetime, we must have both ground-based and airborne SPETSNAZ radio units. This is due to the following circumstances:

- negotiating present-day antiaircraft defenses by front aviation and ensuring the overflights of long-range aviation and military transport aviation is practically impossible without using radioelectronic warfare means; in the near future a similar situation may also develop when it becomes necessary to negotiate enemy antimissile defenses with various types of missiles;

- troop combat training, and particularly that of air defense units, radiotechnical troops, communications troops, and front aviation units, is conducted without extensive use of real jamming; troops do not have the required experience in reconnoitering and destroying jamming producing means; they are slowly mastering tactical methods of protecting troop and weapons control means against enemy missiles that home on radio emissions;

- troop staffs do not have enough experience in neutralizing and destroying means of troop and weapons control; and

- experience also is lacking in conducting the radiotechnical reconnaissance of enemy radiotechnical means.

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Radiotechnical reconnaissance means will also be able to be used to monitor radio emissions, thereby allowing us to close, to a significant degree, the main channels of leakage of the most important information.

In wartime, in our opinion, it is necessary for an air army to include a SPETSNAZ radio air regiment which has to support the combat actions of fighter, fighter-bomber, and reconnaissance aviation, as well as the overflights of long-range aviation and military transport aviation by producing jamming in at least three or four of the airborne alert zones in the immediate vicinity of the front line. This regiment must closely track individual delivery vehicles and groups of bomber and military transport aircraft into the operational depth of the enemy defense, and conduct radiotechnical reconnaissance of enemy radioelectronic means. Based on the tasks enumerated, the regiment must include one radiotechnical reconnaissance air squadron and two jamming air squadrons, one for close coverage of combat formations of aircraft and the other for producing jamming from V-10P (MI-6P) helicopters in airborne alert zones.

In peacetime an air army should have a separate SPETSNAZ radio squadron composed of three detachments. One detachment -- of four aircraft -- to conduct radiotechnical reconnaissance, and two detachments -- the first of four aircraft and the second of four V-10P (MI-6P) helicopters -- to produce jamming.

To produce jamming of the automated control systems for fighter aviation, of bombsights, of short-range radio navigation systems, and of airborne side-looking reconnaissance radars, it is necessary, based on the experience of many exercises, for an air army to include in peacetime a separate SPETSNAZ company, and in wartime, no less than one SPETSNAZ radio battalion.

Thus, it is completely obvious that to solve the entire array of problems on warfare against enemy radioelectronic means, and also of directing SPETSNAZ units and subunits in the armed forces, it is necessary to establish a single service.

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